

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, in the application:

What is claimed is:

- 1           1. (original) A method for inhibiting the corrosion of metals embedded in a  
2    cementitious material, said cementitious material manufacturable from a process  
3    comprising the activities of:  
4            manufacturing lithium nitrate; and  
5            providing said lithium nitrate for addition to said cementitious material at an  
6    effective dosage rate.
  
- 1           2. (original) The method of claim 1, wherein said effective dosage rate is  
2    between about 0.01 gram moles of lithium nitrate per cubic foot of cementitious  
3    material and about 100 gram moles of lithium nitrate per cubic foot of cementitious  
4    material.
  
- 1           3. (original) The method of claim 1, wherein said effective dosage rate is  
2    between about 0.01 gram moles of lithium nitrate per cubic foot of cementitious  
3    material and about 0.1 gram moles of lithium nitrate per cubic foot of cementitious  
4    material.
  
- 1           4. (original) The method of claim 1, wherein said effective dosage rate is  
2    between about 0.1 gram moles of lithium nitrate per cubic foot of cementitious material  
3    and about 1 gram moles of lithium nitrate per cubic foot of cementitious material.
  
- 1           5. (original) The method of claim 1, wherein said effective dosage rate is  
2    between about 1 gram moles of lithium nitrate per cubic foot of cementitious material  
3    and about 10 gram moles of lithium nitrate per cubic foot of cementitious material.

1           6. (original) The method of claim 1, wherein said effective dosage rate is  
2   between about 10 gram moles of lithium nitrate per cubic foot of cementitious material  
3   and about 100 gram moles of lithium nitrate per cubic foot of cementitious material.

1           7. (original) The method of claim 1, wherein said effective dosage rate is  
2   about 0.815 gram moles of lithium nitrate per cubic foot of cementitious material.

1           8. (original) The method of claim 1, wherein said lithium nitrate is provided as  
2   a solid.

1           9. (original) The method of claim 1, wherein said lithium nitrate is provided in  
2   an aqueous solution.

1           10. (original) The method of claim 1, wherein said cementitious material is  
2   concrete.

1           11. (original) The method of claim 1, wherein said cementitious material is  
2   grout.

1           12.     The method of claim 1, wherein said cementitious material is mortar.

1           13. (original) The method of claim 1, wherein said cementitious material is  
2   pozzalanic cement.

1           14. (original) The method of claim 1, wherein said cementitious material is at  
2   least one of cement, grout, mortar, and pozzalanic cement, or any combination thereof.

1           15. (original) A method for inhibiting the corrosion of metals embedded in

2 concrete or any other cementitious material, said concrete or cementitious material  
3 manufacturable from a process comprising the activities of:  
4 obtaining lithium nitrate; and  
5 mixing said lithium nitrate with said concrete or cementitious material at an  
6 effective dosage rate.

1 16. (original) The method of claim 15, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of concrete or  
3 cementitious material and about 100 gram moles of lithium nitrate per cubic foot of  
4 concrete or cementitious material.

1 17. (original) The method of claim 15, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of concrete or  
3 cementitious material and about 0.1 gram moles of lithium nitrate per cubic foot of  
4 concrete or cementitious material.

1 18. (original) The method of claim 15, wherein said effective dosage rate is  
2 between about 0.1 gram moles of lithium nitrate per cubic foot of concrete or  
3 cementitious material and about 1 gram moles of lithium nitrate per cubic foot of  
4 concrete or cementitious material.

1 19. (original) The method of claim 15, wherein said effective dosage rate is  
2 between about 1 gram moles of lithium nitrate per cubic foot of concrete or  
3 cementitious material and about 10 gram moles of lithium nitrate per cubic foot of  
4 concrete or cementitious material.

1 20. (original) The method of claim 15, wherein said effective dosage rate is  
2 between about 10 gram moles of lithium nitrate per cubic foot of concrete or  
3 cementitious material and about 100 gram moles of lithium nitrate per cubic foot of

4 concrete or cementitious material.

1 21. (original) The method of claim 15, wherein said effective dosage rate is  
2 about 0.815 gram moles of lithium nitrate per cubic foot of concrete or cementitious  
3 material.

1 22. (original) A method for inhibiting the corrosion of metals embedded in  
2 grout, said grout manufacturable from a process comprising the activities of:  
3 obtaining lithium nitrate; and  
4 mixing said lithium nitrate with said grout at an effective dosage rate.

1 23. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 80  
3 gram moles of lithium nitrate per cubic foot of grout.

1 24. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 82  
3 gram moles of lithium nitrate per cubic foot of grout.

1 25. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 100  
3 gram moles of lithium nitrate per cubic foot of grout.

1 26. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 0.1  
3 gram moles of lithium nitrate per cubic foot of grout.

1 27. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 0.1 gram moles of lithium nitrate per cubic foot of grout and about 1

3 gram moles of lithium nitrate per cubic foot of grout.

1 28. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 1 gram moles of lithium nitrate per cubic foot of grout and about 10  
3 gram moles of lithium nitrate per cubic foot of grout.

1 29. (original) The method of claim 22, wherein said effective dosage rate is  
2 between about 10 gram moles of lithium nitrate per cubic foot of grout and about 100  
3 gram moles of lithium nitrate per cubic foot of grout.

1 30. (original) The method of claim 22, wherein said effective dosage rate is  
2 about 0.815 gram moles of lithium nitrate per cubic foot of grout.

1 31. (original) A method for inhibiting the corrosion of metals embedded in  
2 mortar, said mortar manufacturable from a process comprising the activities of:  
3 obtaining lithium nitrate; and  
4 mixing said lithium nitrate with said mortar at an effective dosage rate.

1 32. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about 80  
3 gram moles of lithium nitrate per cubic foot of mortar.

1 33. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about 82  
3 gram moles of lithium nitrate per cubic foot of mortar.

1 34. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about  
3 100 gram moles of lithium nitrate per cubic foot of mortar.

1           35. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about  
3 0.1 gram moles of lithium nitrate per cubic foot of mortar.

1           36. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 0.1 gram moles of lithium nitrate per cubic foot of mortar and about 1  
3 gram moles of lithium nitrate per cubic foot of mortar.

1           37. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 1 gram moles of lithium nitrate per cubic foot of mortar and about 10  
3 gram moles of lithium nitrate per cubic foot of mortar.

1           38. (original) The method of claim 31, wherein said effective dosage rate is  
2 between about 10 gram moles of lithium nitrate per cubic foot of mortar and about 100  
3 gram moles of lithium nitrate per cubic foot of mortar.

1           39. (original) The method of claim 31, wherein said effective dosage rate is  
2 about 0.815 gram moles of lithium nitrate per cubic foot of mortar.

1           40. (original) A method for inhibiting the corrosion of metals embedded in  
2 cementitious material, said cementitious material manufacturable from a process  
3 comprising the activities of:  
4           obtaining lithium nitrate; and  
5           applying said lithium nitrate to the surface of said cementitious material at an  
6 effective dosage rate.

1           41. (original) The method of claim 40, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of cementitious

3 material and about 100 gram moles of lithium nitrate per cubic foot of cementitious  
4 material.

1 42. (original) The method of claim 40, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of cementitious  
3 material and about 0.10 gram moles of lithium nitrate per cubic foot of cementitious  
4 material.

1 43. (original) The method of claim 40, wherein said effective dosage rate is  
2 between about 0.1 gram moles of lithium nitrate per cubic foot of cementitious material  
3 and about 1 gram moles of lithium nitrate per cubic foot of cementitious material.

1 44. (original) The method of claim 40, wherein said effective dosage rate is  
2 between about 1 gram moles of lithium nitrate per cubic foot of cementitious material  
3 and about 10 gram moles of lithium nitrate per cubic foot of cementitious material.

1 45. (original) The method of claim 40, wherein said effective dosage rate is  
2 between about 10 gram moles of lithium nitrate per cubic foot of cementitious material  
3 and about 100 gram moles of lithium nitrate per cubic foot of cementitious material.

1 46. (original) The method of claim 40, wherein said effective dosage rate is  
2 about 0.815 gram moles of lithium nitrate per cubic foot of cementitious material.

1 47. (original) A method for inhibiting the corrosion of metals in embedded in  
2 cementitious material, said cementitious material manufacturable from a previously  
3 heated Portland cement composition, said Portland cement manufacturable from a  
4 process comprising the activities of:

5 obtaining lithium nitrate; and

6 admixing said lithium nitrate with said Portland cement composition at an

7 effective dosage rate.

1 48. (original) The method of claim 47, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of cement and about  
3 100 gram moles of lithium nitrate per cubic foot of cement.

1 49. (original) The method of claim 47, wherein said effective dosage rate is  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of cement and about  
3 0.1 gram moles of lithium nitrate per cubic foot of cement.

1 50. (original) The method of claim 47, wherein said effective dosage rate is  
2 between about 0.1 gram moles of lithium nitrate per cubic foot of cement and about 1  
3 gram moles of lithium nitrate per cubic foot of cement.

1 51. (original) The method of claim 47, wherein said effective dosage rate is  
2 between about 1 gram moles of lithium nitrate per cubic foot of cement and about 10  
3 gram moles of lithium nitrate per cubic foot of cement.

1 52. (original) The method of claim 47, wherein said effective dosage rate is  
2 between about 10 gram moles of lithium nitrate per cubic foot of cement and about 100  
3 gram moles of lithium nitrate per cubic foot of cement.

1 53. (original) The method of claim 47, wherein said effective dosage rate is  
2 about 0.815 gram moles of lithium nitrate per cubic foot of cement.

1 54. (original) A method for inhibiting the corrosion of metals embedded in  
2 cementitious material, said cementitious material comprising a Portland cement  
3 composition, said Portland cement composition creatable from a method comprising  
4 the activities of:



5 obtaining lithium nitrate;  
6 admixing said lithium nitrate with said Portland cement in an amount sufficient  
7 to inhibit the corrosion of metals; and  
8 heating said material to form a Portland cement clinker.

1 55. (original) The method of claim 54, wherein said sufficient amount  
2 provides a molar ratio of lithium to sodium equivalent in the resultant cement clinker  
3 of between about 0.01:1 to about 10:1.

1 56. (original) The method of claim 54, wherein said sufficient amount  
2 provides a molar ratio of lithium to sodium equivalent in the resultant cement clinker  
3 of between about 0.01:1 to about 0.1:1.

1 57. (original) The method of claim 54, wherein said sufficient amount  
2 provides a molar ratio of lithium to sodium equivalent in the resultant cement clinker  
3 of between about 0.1:1 to about 1:1.

1 58. (original) The method of claim 54, wherein said sufficient amount  
2 provides a molar ratio of lithium to sodium equivalent in the resultant cement clinker  
3 of between about 1:1 to about 5:1.

1 59. (original) The method of claim 54, wherein said sufficient amount  
2 provides a molar ratio of lithium to sodium equivalent in the resultant cement clinker  
3 of between about 5:1 to about 10:1.

1 60. (original) A composition comprising:  
2 a concrete or cementitious material comprising between about 0.01 gram moles  
3 of lithium nitrate per cubic foot of concrete to about 100 gram moles of lithium nitrate  
4 per cubic foot of concrete or cementitious material.

1           61. (original) The composition of claim 60, wherein said concrete or  
2   cementitious material comprises between about 0.01 gram moles of lithium nitrate per  
3   cubic foot of concrete to about 0.1 gram moles of lithium nitrate per cubic foot of  
4   concrete or cementitious material.

1           62. (original) The composition of claim 60, wherein said concrete or  
2   cementitious material comprises between about 0.1 gram moles of lithium nitrate per  
3   cubic foot of concrete to about 1 gram moles of lithium nitrate per cubic foot of  
4   concrete.

1           63. (original) The composition of claim 60, wherein said concrete or  
2   cementitious material comprises between about 1 gram moles of lithium nitrate per  
3   cubic foot of concrete to about 10 gram moles of lithium nitrate per cubic foot of  
4   concrete or cementitious material.

1           64. (original) The composition of claim 60, wherein said concrete or  
2   cementitious material comprises between about 10 gram moles of lithium nitrate per  
3   cubic foot of concrete to about 100 gram moles of lithium nitrate per cubic foot of  
4   concrete or cementitious material.

1           65. (currently amended) The ~~method~~composition of claim 60, wherein said  
2   concrete or cementitious material comprises about 0.815 gram moles of lithium nitrate  
3   per cubic foot of grout or cementitious material.

1           66. (original) A composition comprising:  
2           a grout comprising between about 0.01 gram moles of lithium nitrate per cubic  
3   foot of grout to about 100 gram moles of lithium nitrate per cubic foot of grout.

1           67. (original) The composition of claim 66, wherein said grout comprises  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 80  
3 gram moles of lithium nitrate per cubic foot of grout.

1           68. (original) The composition of claim 66, wherein said grout comprises  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of grout and about 82  
3 gram moles of lithium nitrate per cubic foot of grout.

1           69. (currently amended) The ~~method~~composition of claim 66, wherein grout  
2 comprises between about 0.01 gram moles of lithium nitrate per cubic foot of grout and  
3 about 0.1 gram moles of lithium nitrate per cubic foot of grout.

1           70. (currently amended) The ~~method~~composition of claim 66, wherein said  
2 grout between about 0.1 gram moles of lithium nitrate per cubic foot of grout and about  
3 1 gram moles of lithium nitrate per cubic foot of grout.

1           71. (currently amended) The ~~method~~composition of claim 66, wherein said  
2 grout comprises between about 1 gram moles of lithium nitrate per cubic foot of grout  
3 and about 10 gram moles of lithium nitrate per cubic foot of grout.

1           72. (currently amended) The ~~method~~composition of claim 66, wherein said  
2 grout comprises between about 10 gram moles of lithium nitrate per cubic foot of grout  
3 and about 100 gram moles of lithium nitrate per cubic foot of grout.

1           73. (currently amended) The ~~method~~composition of claim 66, wherein said  
2 grout comprises about 0.815 gram moles of lithium nitrate per cubic foot of grout.

1           74. (original) A composition comprising:  
2 a mortar comprising between about 0.01 gram moles of lithium nitrate per cubic

3 foot of mortar to about 100 gram moles of lithium nitrate per cubic foot of mortar.

1 75. (original) The composition of claim 74, wherein said mortar comprises  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about 80  
3 gram moles of lithium nitrate per cubic foot of mortar.

1 76. (original) The composition of claim 74, wherein said mortar comprises  
2 between about 0.01 gram moles of lithium nitrate per cubic foot of mortar and about 82  
3 gram moles of lithium nitrate per cubic foot of mortar.

1 77. (currently amended) The ~~method~~composition of claim 74, wherein mortar  
2 comprises between about 0.01 gram moles of lithium nitrate per cubic foot of mortar  
3 and about 0.1 gram moles of lithium nitrate per cubic foot of mortar.

1 78. (currently amended) The ~~method~~composition of claim 74, wherein said  
2 mortar between about 0.1 gram moles of lithium nitrate per cubic foot of mortar and  
3 about 1 gram moles of lithium nitrate per cubic foot of mortar.

1 79. (currently amended) The ~~method~~composition of claim 74, wherein said  
2 mortar comprises between about 1 gram moles of lithium nitrate per cubic foot of  
3 mortar and about 10 gram moles of lithium nitrate per cubic foot of mortar.

1 80. (currently amended) The ~~method~~composition of claim 74, wherein said  
2 mortar comprises between about 10 gram moles of lithium nitrate per cubic foot of  
3 mortar and about 100 gram moles of lithium nitrate per cubic foot of mortar.

1 81. (currently amended) The ~~method~~composition of claim 74, wherein said  
2 mortar comprises about 0.815 gram moles of lithium nitrate per cubic foot of mortar.

- 1           82. (original) A composition comprising:
- 2           a cementitious material comprising an effective amount lithium nitrate per
- 3   cubic foot of cementitious material for inhibiting the corrosion of metals embedded in
- 4   cementitious material.